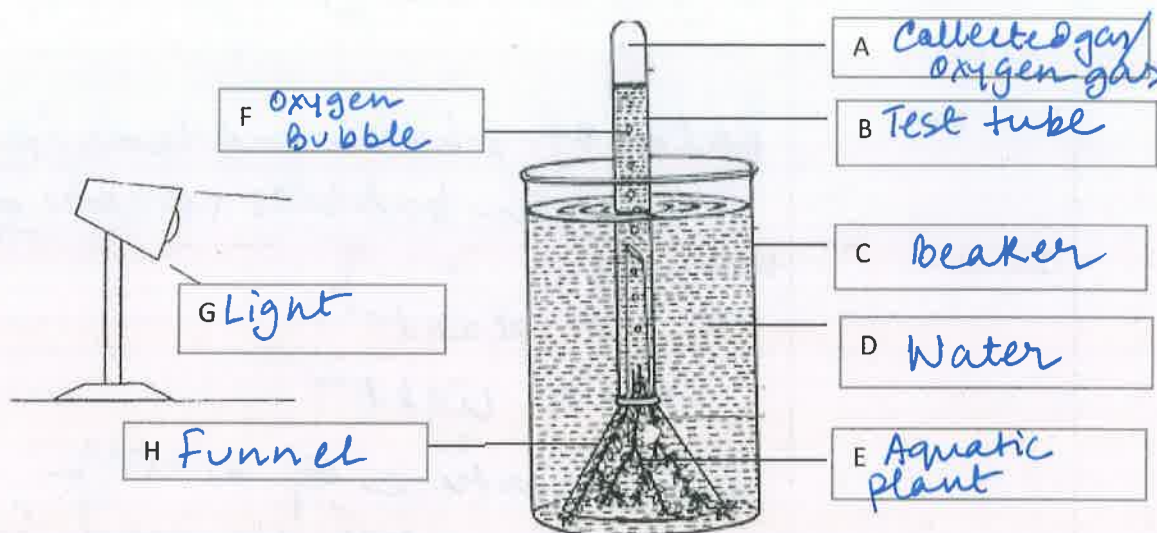


PHOTOSYNTHESIS

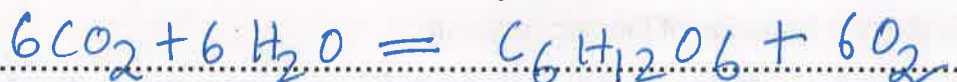
NAME: .....

DATE: .....

The figure shown below is an experimental set up to study the process of photosynthesis in plants. Label the set up.



- a) Write a balanced chemical equation of photosynthesis.



- b) Write a suitable aim for an investigation you can carry out using the apparatus shown above.

To observe/study/investigate the effect of light intensity on the rate of photosynthesis of an aquatic plant (Elodea)

- c) Which part of the plant is carrying out photosynthesis?

Green leaves and stem

- d) What is present in the section labelled A?

Oxygen gas released from the plant

e) List the variables of the experiment in the table below.

Type of variable	Description
Independent	Light intensity
Dependent	Rate of photosynthesis/Number of oxygen bubbles released over time.
Control	List any three : Type of plant Color of light Temperature of water pH of water, dissolved $\text{CO}_2$ concentration of water.

f) State one limitation of the above set up.

Only aquatic plant can be studied;  
Photosynthesis of Land plants cannot be investigated.

g) Suggest two more experiments on photosynthesis you can carry out using the same apparatus?

i) Investigating the effect of color of light on the rate of photosynthesis

ii) Investigating the effect of dissolved  $\text{CO}_2$  on the rate of photosynthesis.

iii) Investigating the effect of surrounding temperature on the rate of photosynthesis.

iv)